



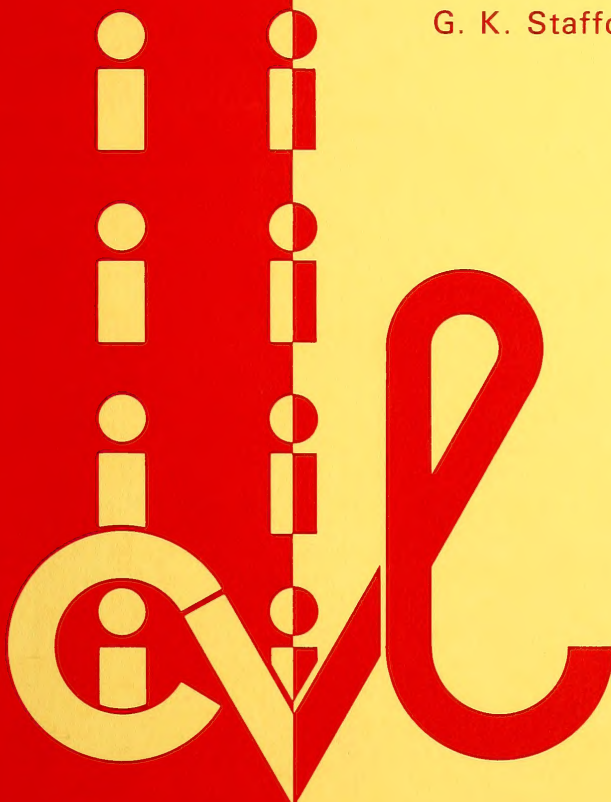
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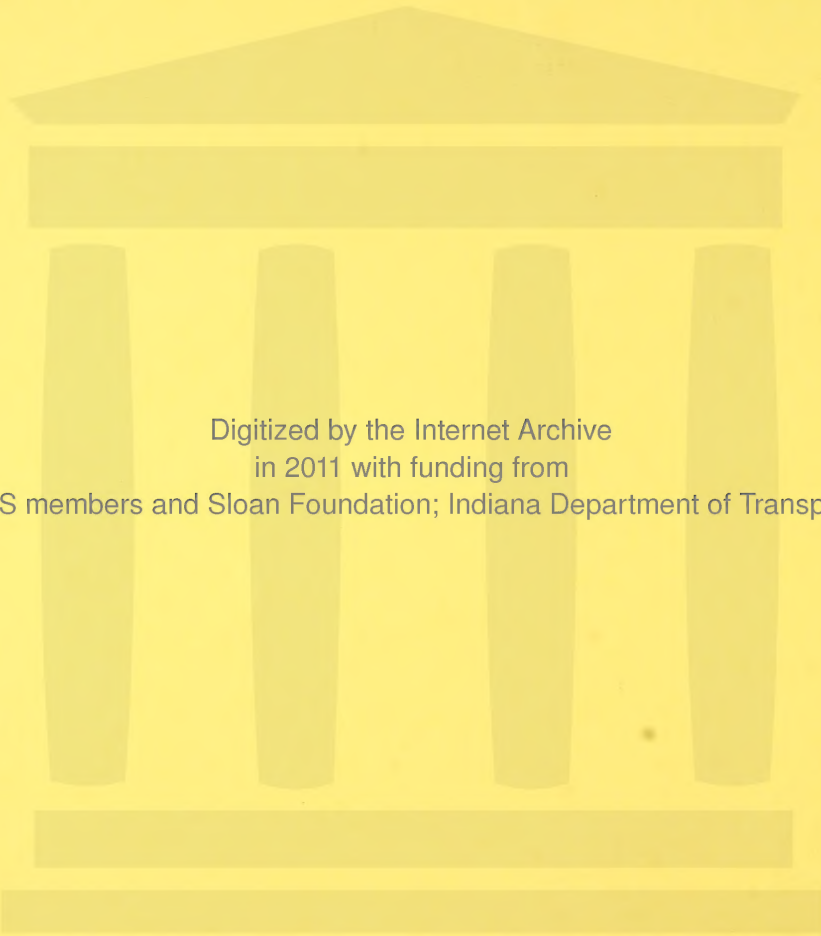
JHRP-77-16

TRAFFIC SPEED REPORT NO. 101

G. S. Toft

G. K. Stafford





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TRAFFIC SPEED REPORT NO. 101

TO: J. F. McLaughlin, Director
Joint Highway Research Project

FROM: H. L. Michael, Associate Director
Joint Highway Research Project

September 7, 1977

File: 8-3-3

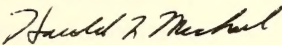
Project: C-36-10C

The attached Progress Report No. 101 on Traffic Speeds is the report of the April-June 1977 quarterly study of free-flowing automobile and truck speeds on rural, tangent, level sections of Interstate, 4-lane and 2-lane and on urban interstate highways in Indiana. The report has been prepared by Mr. G. S. Toft, a Graduate Instructor in Research on our staff, under the direction of Professor H. L. Michael. The data collection was directed by Mr. G. K. Stafford of our staff.

The results indicate that the average speed of passenger cars was similar while that of trucks was 2.0 mph greater than the respective average speeds for the preceding quarterly period. For the first time since the initiation of these speed studies, the average speed of heavy trucks (58.6) exceeded that of passenger cars (58.1).

Copies of the report will be sent to the Federal Highway Administration and the ISHC for review, comment and acceptance as fulfillment of the objectives of this HPR Part I Study. Copies of the report are requested for release to the Indiana State Police and the Indiana Office of Traffic Safety as a normal procedure for these reports.

Respectfully submitted,


Harold L. Michael
Associate Director

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Interim Report
TRAFFIC SPEED REPORT NO. 101

by
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Graduate Instructor in Research
and
G. K. Stafford
Traffic Engineering Technician

Joint Highway Research Project

Project No.: C-36-10C

File No.: 8-3-3

Prepared as Part of an Investigation

Conducted by

Joint Highway Research Project
Engineering Experiment Station
Purdue University

in cooperation with the

Indiana State Highway Commission

and the

U. S. Department of Transportation
Federal Highway Administration

The opinions, findings and conclusions expressed in this publication are those of the authors and not necessarily those of the Federal Highway Administration.

Purdue University
West Lafayette, Indiana
September 7, 1977

TRAFFIC SPEED REPORT NO. 101

This report is an analysis of spot speed observations made during April-June 1977. All observations were made of free-flowing vehicles on level, tangent sections of rural and urban highways during daylight and under favorable conditions.

The speed monitoring stations for each highway classification are divided into two groups. The first group is identified as "control stations" and studied from the same locations on selected Federal and State highways as used in the previous annual studies. These "control stations" are used in each quarterly study. The second group is selected at random for each quarterly study.

Fourteen speed monitoring stations were used for the reported study. Seven of these stations were the control stations noted above. The other seven stations were selected at random for this quarterly study.

Stations were classified as two-lane, four-lane, rural interstate, or urban interstate highways. A representative sample of spot speeds was obtained at each station in each classification. The site locations were as follows: (See Figure A).

Rural Interstate Highways

*RI-21 (I-69)	1.6 miles south of junction of SR 18
*RI-6 (I-65)	7.5 miles north of junction of SR 160
RI-33 (I-65)	4.6 miles north of junction of SR 28
**RI-25 (I-80)-TR	12.2 miles east of junction of SR 9

Four-Lane Highways

*4L-32 (U.S. 30)	2.9 miles west of Wanatah city limit sign
*4L-17 (U.S. 52)	just east of Co. Rd. 475W, near Klondike
4L-27 (U.S. 24)	3.5 miles east of junction of SR 9
4L-29 (U.S. 30)	1.3 miles east of junction of SR 13

Two-Lane Highways

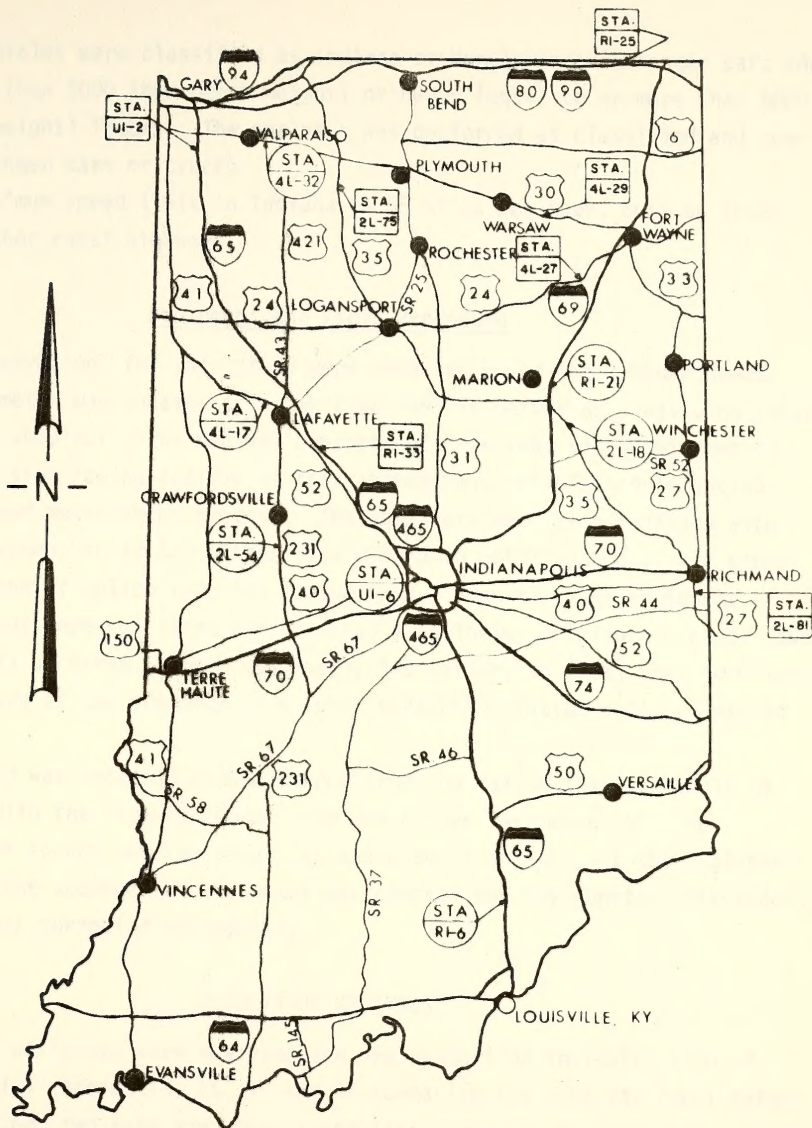
*2L-18 (U.S. 35)	2.5 miles east of junction of I-69
*2L-54 (U.S. 231)	1.1 miles south of junction of SR 234
2L-75 (U.S. 35)	2.7 miles north of Knox city limit sign
2L-81 (U.S. 27)	0.6 miles south of Union-Wayne county line

Urban Interstate Highways

*UI-6 (I-65)	East of White River Bridge
<u>UI-2 (I-65)</u>	0.9 miles north of junction of SR 8

*Control stations

**Toll Road



NOTE



-  Primary control stations
-  Random stations

FIGURE A , LOCATIONS OF SPEED-STUDY STATIONS

The vehicles were classified as Indiana or Non-Indiana Passenger Cars and Light (less than 5000 lbs. gross weight) or Heavy (equal to or more than 5000 lbs. gross weight) Trucks. The analysis was performed as classified and combined, passenger cars or trucks.

The maximum speed limit in Indiana is 55 miles per hour, both on Interstate and other rural highways.

Equipment and Field Procedure

The observations for this study were obtained by use of a Radar Speed Meter. The meter was located in a van type vehicle parked as a disabled vehicle on the right shoulder. The van was equipped with one-way vision windows on the rear and side facing traffic so that approaching vehicles could not observe the speed measurement process. The observers were also equipped with CB radio equipment so as to monitor possible radio notification of the speed measurement and of police vehicles in the area. When any such incidents occurred speeds were not taken for at least a following 15 minute period. Such periods rarely occurred. There was rarely indication, in fact, that motorists were ever aware of the presence of a speed measuring station while it was in operation.

The speed was measured at a distance from the van so that the angle of measurement with the highway center line was always less than 10° . No corrections of speeds were necessary at these small angles. At the beginning of the study the accuracy of the meter was checked and any constant discrepancy of readings was corrected accordingly.

RESULTS OF ANALYSIS

The data collected were analyzed and are summarized in Tables 1 to 14 in the Appendix. Tables 15, 16, 17 and 18 summarize the data for rural interstate, four-lane, two-lane and urban interstate highways, respectively. Table 19 is the summary for all highways. Tables 20 through 34 are summaries in an FHWA format which is desired.

The average speed for each classification of vehicles on each type of highway for this study was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two-Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four-Lane</u> <u>Rural</u>	<u>Rural</u>
<u>Passenger Cars:</u>				
Indiana	58.7	60.4	57.1	56.3
Non-Indiana	59.1	60.5	57.8	57.3
All Passenger Cars	58.8	60.5	57.2	56.4
85 Percentile (all)	62.9	64.8	61.9	61.4
<u>Trucks:</u>				
Less than 5000 lbs.	57.7	59.3	56.7	55.6
5000 lbs. or more	58.9	60.9	58.0	55.1
<u>All Vehicles:</u>				
Average	58.7	60.5	57.4	56.0
85 Percentile	63.1	64.8	62.1	61.0

The percent of vehicles exceeding the speed limit (55 mph) for each classification of vehicle and each type of highway was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two-Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four-Lane</u>	
<u>Passenger Cars:</u>				
Indiana	75.5	86.3	63.3	55.5
Non-Indiana	81.0	86.9	67.7	61.0
All Passenger Cars	77.1	86.6	64.0	56.2
<u>Trucks:</u>				
Less than 5000 lbs.	66.1	77.9	58.1	51.1
5000 lbs. or more	82.0	88.1	71.8	49.6
<u>All Vehicles:</u>	76.9	86.1	65.4	53.9

The percent of vehicles traveling more than 5 mph above the speed limit (exceeding 60 mph) for each case was as follows:

	<u>Interstate</u>		<u>Other Four-Lane Rural</u>	<u>Two-Lane Rural</u>
	<u>Urban</u>	<u>Rural</u>		
<u>Passenger Cars:</u>				
Indiana	32.0	45.8	23.3	20.2
Non-Indiana	38.0	45.3	24.5	27.9
All Passenger Cars	33.7	45.5	23.5	21.2
<u>Trucks:</u>				
Less than 5000 lbs.	28.4	40.7	23.8	18.5
5000 lbs. or more	35.3	54.5	33.1	14.4
<u>All Vehicles:</u>	33.4	48.0	26.4	19.3

The percent of vehicles traveling more than 10 miles per hour above the speed limit (exceeding 65 mph) for each case was as follows:

	<u>Interstate</u>		<u>Other Four-Lane Rural</u>	<u>Two-Lane Rural</u>
	<u>Urban</u>	<u>Rural</u>		
<u>Passenger Cars:</u>				
Indiana	8.4	15.2	5.8	5.1
Non-Indiana	6.3	13.5	5.2	9.6
All Passenger Cars	7.8	14.3	5.7	5.7
<u>Trucks:</u>				
Less than 5000 lbs.	9.5	10.6	3.6	5.9
5000 lbs. or more	9.4	14.8	5.7	2.0
<u>All Vehicles:</u>	8.5	14.1	5.4	5.0

Summary and Conclusions

The overall average speeds for all vehicles and for all passenger cars in this study were found to be the same, 58.1 mph. The overall average speeds for heavy trucks and for all trucks were found to be 58.6 mph and 58.0 mph, respectively. These overall average speeds show an increase over the results of January-March 1977 of 1.1 mph for all vehicles and 0.3 mph for all passenger cars. The overall average speeds for heavy trucks and for all trucks were 2.6 mph and 2.0 mph, respectively, more than the results for the January-March 1977 study.

Table A presents a comparison of the overall speed results with that of the previous two studies. The 85th percentile speed and the average speed of passenger cars was essentially the same as the pre-winter quarter (Oct.-Dec. 1976). However the 85th percentile and the average speeds of trucks show a significant increase from the pre-winter results.

A comparison of April-June 1977 speed data with that for other recent periods for several types of highway for passenger cars and trucks is shown in Tables B, C, D and E. In general, speeds increased on all highway types except two-lane highways where both passenger car and truck speeds show little quarterly variation.

The increase in average speed of passenger cars occurred mainly on urban interstate highways. Passenger vehicle speeds remained approximately the same as the January-March results on rural interstate and four-lane highways and showed a slight decline on two-lane highways. These April-June 1977 passenger car speeds closely resemble the passenger car speeds on all highway types for July-September 1976 suggesting no significant change under comparable seasonal conditions. The upward trend in passenger car speeds on rural interstate highways observed in the last report has continued, but only marginally.

Except for two-lane highways, truck speeds increased to record levels on all highway types. In particular, heavy trucks reached the highest observed average speeds over the past twelve months on urban interstate, rural interstate and four-lane highways.

TABLE A. COMPARISON OF THE OVERALL SPEED RESULTS

	April-June 1977	Jan.-Mar. 1977	Oct.-Dec. 1976
<u>Average:</u>			
All Passenger Cars	58.1	57.8	58.0
Heavy Trucks	58.6	56.0	56.0
All Trucks	58.0	56.0	56.1
<u>85 Percentile:</u>			
All Passenger Cars	63.0	62.7	63.0
Heavy Trucks	63.3	61.5	60.9
All Trucks	63.0	61.4	61.0
<u>15 Percentile:</u>			
Heavy Trucks	52.9	49.7	50.3

TABLE B. AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (URBAN)

	April-June 1977	Jan.-Mar. 1977	Oct.-Dec. 1976	July-Sept. 1976
<u>Passenger Cars:</u>				
Indiana	58.7	57.0	57.3	58.4
Non-Indiana	59.1	57.1	57.8	58.6
All Passenger Cars	58.8	57.0	57.3	58.4
85 Percentile (all)	62.9	61.5	61.2	63.3
<u>Trucks:</u>				
Less than 5000 lbs.	57.7	55.9	55.7	57.7
5000 lbs. or more	58.9	56.2	55.4	57.3

TABLE C. AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (RURAL)

	April-June 1977	Jan.-Mar. 1977	Oct.-Dec. 1976	July-Sept. 1976
<u>Passenger Cars:</u>				
Indiana	60.4	60.1	59.7	59.5
Non-Indiana	60.5	61.0	60.1	60.2
All Passenger Cars	60.5	60.5	59.9	59.8
85 Percentile (all)	64.8	64.7	64.5	64.3
<u>Trucks:</u>				
Less than 5000 lbs.	59.3	58.0	58.0	58.5
5000 lbs. or more	60.9	59.3	57.4	58.4

TABLE D. AVERAGE SPEEDS ON OTHER FOUR-LANE HIGHWAYS

	April-June 1977	Jan.-Mar. 1977	Oct.-Dec. 1976	July-Sept. 1976
<u>Passenger Cars:</u>				
Indiana	57.1	56.7	58.1	57.2
Non-Indiana	57.8	58.7	59.8	57.8
All Passenger Cars	57.2	57.0	58.3	57.3
85 Percentile (all)	61.9	61.7	63.7	61.8
<u>Trucks:</u>				
Less than 5000 lbs.	56.7	54.8	56.8	56.9
5000 lbs. or more	58.0	54.8	55.9	56.6

TABLE E. AVERAGE SPEEDS ON TWO-LANE HIGHWAYS

	April-June 1977	Jan.-Mar. 1977	Oct.-Dec. 1976	July-Sept. 1976
<u>Passenger Cars:</u>				
Indiana	56.3	56.5	56.4	56.4
Non-Indiana	57.3	58.3	56.3	57.8
All Passenger Cars	56.4	56.7	56.4	56.6
85 Percentile (all)	61.4	61.8	61.4	61.5
<u>Trucks:</u>				
Less than 5000 lbs.	55.6	55.8	54.9	55.6
5000 lbs. or more	55.1	53.5	54.4	55.4

TABLE 1 SPEED DATA

Station	RI-6	Highway	I-65	Type of Surface	Concrete	Location	7.5 miles north of junction of S.R. 160	Weather	Clear
No. of Lanes	4								
This Observation									
Date	5-26-77								
Time	12:30-1:13 PM - SB								
	2:00-2:32 PM - NB								
				Last Previous Observation (Speed Report No. 100)					
				Date 3-14-77					
				Time 12:12-1:05 PM - SB					
				1:20-2:20 PM - NB					

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	275	246	120	134	155	112	202	184	61	57	141	127
Ave. speed (m.p.h.)	60.43	60.74	60.01	60.65	60.75	60.86	59.69	60.06	59.49	59.75	59.77	60.20
Standard deviation	5.55	5.40	5.59	5.21	5.51	5.64	4.89	4.68	5.02	5.46	4.85	4.30
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
44 m.p.h.	.36	0	.83	0	0	0	.50	0	1.64	0	0	0
49 m.p.h.	4.00	1.22	4.17	1.49	3.87	.89	2.48	1.09	1.64	1.75	2.84	.79
54 m.p.h.	13.09	9.35	15.83	9.70	10.97	8.93	13.37	10.33	11.48	14.04	14.18	8.66
59 m.p.h.	41.09	45.12	43.33	42.54	39.35	48.21	49.01	44.57	55.74	56.14	46.10	39.37
64 m.p.h.	83.27	80.08	84.17	79.85	82.58	80.36	85.64	85.33	86.89	82.46	85.11	86.61
69 m.p.h.	94.18	94.31	94.17	95.52	94.19	92.86	98.02	97.28	98.36	94.74	97.87	98.43
74 m.p.h.	98.91	98.37	100.0	97.76	98.06	99.11	99.50	100.0	100.0	100.0	99.29	100.0
79 m.p.h.	100.0	99.59	100.0	100.0	100.0	99.11	100.0	100.0	100.0	100.0	100.0	100.0
84 m.p.h.	100.0	99.59	100.0	100.0	100.0	99.11	100.0	100.0	100.0	100.0	100.0	100.0
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of vehicles obs.	147	131	61	71	86	60	115	84	42	25	73	59
Average speed	61.43	59.37	60.62	59.30	62.00	59.47	60.42	58.58	60.10	57.44	60.60	59.07
No. of vehicles obs.	128	115	59	63	69	52	87	100	19	32	68	68
Average speed	59.28	62.30	59.37	62.17	59.20	62.46	58.72	61.30	58.16	61.56	58.88	61.18

All Vehicles

End

End

TABLE 2 SPEED DATA

Station RI-21	Highway I-69	Location 1.6 miles south of junction of S.R. 18	Weather Clear
No. of Lanes 4	Type of Surface Concrete		
This Observation			
Date 5-11-77	Last Previous Observation (Speed Report No. 100)		
Time 10:40-11:31 AM - NB	Date 3-17-77		
11:53 AM - 12:56 PM - SB	Time 10:35-11:31 AM - NB		
	12:03-1:12 PM - SB		

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	242	263	137	178	105	85	186	174	55	48	131	126
Ave. speed (m.p.h.)	60.24	60.16	59.30	59.96	61.48	60.58	57.91	59.67	57.18	58.64	58.22	60.06
Standard deviation	5.14	4.76	4.92	4.56	5.18	5.17	5.11	5.35	5.68	5.09	4.84	5.02
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
44 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
49 m.p.h.	2.48	.38	3.65	.56	.95	0	.54	0	1.82	0	0	0
54 m.p.h.	10.33	7.98	13.87	8.99	5.71	5.88	4.84	2.87	7.27	4.17	3.82	2.38
59 m.p.h.	46.69	49.81	54.01	51.69	37.14	45.88	63.98	50.57	67.27	52.50	62.60	46.03
64 m.p.h.	84.30	85.93	87.59	85.96	80.00	85.88	88.71	83.91	89.09	89.58	88.55	81.75
69 m.p.h.	94.21	95.44	97.08	96.63	90.48	92.94	98.39	95.40	98.18	93.75	98.47	96.03
74 m.p.h.	98.76	98.48	99.27	99.44	98.10	96.47	100.0	99.43	100.0	97.92	100.0	100.0
79 m.p.h.	100.0	99.62	100.0	100.0	100.0	98.82	100.0	100.0	100.0	100.0	100.0	100.0
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of vehicles obs.	118	128	72	86	46	42	96	91	25	24	71	67
Average speed	61.08	60.26	60.25	60.33	62.37	60.12	59.25	60.75	58.56	59.17	59.49	61.31
No. of vehicles obs.	124	135	65	92	59	43	90	83	30	24	60	59
Average speed	59.45	60.06	58.25	59.61	60.78	61.02	56.49	58.49	56.03	58.13	56.72	58.64

TABLE 3 SPEED DATA

NB 4.6 miles north of junction of S.R. 28

Station RI-33 Highway I-65

Location SB 6.1 miles south of S.R. 38

No. of Lanes 4 Type of Surface Concrete

Weather Clear

This Observation

Last Previous Observation (Speed Report No. 100)

Date 5-13-77

Date None Taken

Time 10:00-10:46 AM - SB

Time

11:28-12:05 PM - NB

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		238		130		108		192		52		140
Ave. speed (m.p.h.)		60.86		60.88		60.83		60.50		60.06		60.66
Standard deviation		5.34		5.45		5.24		4.98		5.26		4.88
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0		0		0
34 m.p.h.		0		0		0		0		0		0
39 m.p.h.		0		0		0		0		0		0
44 m.p.h.		0		0		0		0		0		0
49 m.p.h.		.42		.77		0		2.08		3.85		1.43
54 m.p.h.		9.66		10.00		9.26		11.46		15.38		10.00
59 m.p.h.		42.02		43.08		40.74		43.23		44.23		42.86
64 m.p.h.		78.15		77.69		78.70		81.25		82.60		80.71
69 m.p.h.		93.28		93.08		93.52		95.31		96.15		95.00
74 m.p.h.		98.32		98.46		98.15		98.96		98.08		98.29
79 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
No. of vehicles obs.		119		57		62		96		22		74
Average speed		60.68		60.72		60.65		61.85		61.23		62.04
No. of vehicles obs.		119		73		46		96		30		66
Average speed		61.04		61.01		61.09		59.15		59.20		59.12
All Vehicles												
Bnd												

TABLE 4 SPEED DATA

Station RI-25 Highway I-80 Location 12.2 miles east of junction of SR 9

No. of Lanes 4 Type of Surface Concrete Weather Clear

This Observation
 Date 5-24-77
 Time 9:58-10:55 AM - EB
11:11 AM - 12:04 PM - WB

Last Previous Observation (Speed Report No.)
 Date None Taken
 Time

	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
OBSERVATION	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	202		19		183		229		42		187	
Ave. speed (m.p.h.)	60.02		59.32		60.09		61.57		58.52		62.26	
Standard deviation	4.74		4.91		4.73		5.10		5.24		4.82	
24 m.p.h.	0		0		0		0		0		0	
29 m.p.h.	0		0		0		0		0		0	
34 m.p.h.	0		0		0		0		0		0	
39 m.p.h.	0		0		0		0		0		0	
44 m.p.h.	0		0		0		0		0		0	
49 m.p.h.	0		0		0		0		0		0	
54 m.p.h.	99		0		1.09		1.75		7.14		.53	
59 m.p.h.	9.90		10.53		9.84		6.99		19.05		4.28	
64 m.p.h.	48.51		63.16		46.99		31.00		52.38		26.20	
69 m.p.h.	85.64		89.47		85.25		76.42		90.48		73.26	
74 m.p.h.	6.04		94.74		96.17		94.32		97.62		93.58	
79 m.p.h.	99.50		100.0		99.45		98.25		100.0		97.86	
84 m.p.h.	100.0		100.0		100.0		99.56		100.0		99.47	
89 m.p.h.	100.0		100.0		100.0		100.0		100.0		100.0	
	100.0		100.0		100.0		100.0		100.0		100.0	
No. of vehicles obs.	89		14		75		126		21		105	
Average speed	60.72		60.36		60.79		62.39		60.19		62.83	
No. of vehicles obs.	113		5		108		103		21		82	
Average speed	59.47		56.40		59.61		60.57		56.86		61.52	

TABLE 5 SPEED DATA

Station	4L-17	Highway	U.S. 52	Location Just east of Co. Rd. 475W, near Klondike		
No. of Lanes	4	Type of Surface		Asphalt	Weather	Clear
This Observation		Last Previous Observation (Speed Report No.100)				
Date	5/9/77			Date	3/11/77	
Time	9:36-11:15 A.M. - WB			Time	9:40-11:35 A.M. - WB	
	11:20 A.M.-1:04 P.M. - EB				12:40-2:15 P.M. - EB	

OBSERVATION	PASSENGER CARS						TRUCKS					
	All			Indiana			Non-Indiana			All		
	Last	Pres-ent	Last	Last	Pres-ent	Last	Last	Pres-ent	Last	Last	Pres-ent	Last
No. of vehicles obs.	288	278	265	246	32	170	151	110	89	60	62	
Ave. speed (m.p.h.)	56.80	56.75	56.68	56.59	58.17	57.97	55.12	56.12	56.30	55.08	55.85	
Standard deviation	5.84	5.90	5.81	6.00	6.15	5.00	5.62	7.25	5.44	7.04	5.98	
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	
29 m.p.h.	0	.36	0	.41	0	0	0	0	0	0	0	
34 m.p.h.	0	.36	0	.41	0	0	0	1.32	0	0	0	
39 m.p.h.	1.04	.72	1.13	.81	0	0	0	1.32	0	0	3.23	
44 m.p.h.	2.08	3.96	2.26	4.47	0	0	5.29	5.96	5.45	3.37	5.00	
49 m.p.h.	9.72	8.27	9.81	8.54	8.70	6.25	15.29	13.91	15.45	10.11	15.00	
54 m.p.h.	33.33	28.78	33.96	30.89	26.09	12.50	45.29	35.10	42.73	40.45	50.00	
59 m.p.h.	69.79	71.94	70.94	72.36	56.52	68.75	75.29	74.17	78.18	78.65	70.00	
64 m.p.h.	92.36	91.01	93.21	91.87	82.61	84.38	97.06	92.72	98.18	94.38	95.00	
69 m.p.h.	98.26	98.20	98.11	97.97	100.00	100.00	100.00	98.68	100.00	97.75	100.00	
74 m.p.h.	100.00	99.64	100.00	99.59	100.00	100.00	100.00	99.34	100.00	98.88	100.00	
79 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.34	100.00	98.88	100.00	
84 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.34	100.00	98.88	100.00	
89 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.34	100.00	98.88	100.00	
All Vehicles												
No. of vehicles obs.	164	146	149	131	15	15	82	69	59	43	23	
Average speed	56.90	56.16	56.70	55.93	58.87	58.13	54.85	54.46	54.90	54.56	54.74	
No. of vehicles obs.	124	132	116	115	8	17	88	82	51	46	37	
Average speed	56.67	57.40	56.66	57.34	56.88	57.82	55.36	57.51	55.41	57.93	55.30	



TABLE 6 SPEED DATA

Station	4L-32	Highway	U.S. 30	Location	2.9 miles west of Watah city limit sign
No. of Lanes	4	Type of Surface	Asphalt	Weather	Clear
This Observation					
Date	5/19/77	Last Previous Observation (Speed Report No. 100)			
Time	11:06 A.M.-12:00 noon - WB	Date	3/23/77		
	12:19-1:20 P.M. - EB	Time	10:50-11:54 A.M. - WB		
			12:22-1:28 P.M. - EB		

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	211	180	168	131	43	49	216	248	66	47	150	201
Ave. speed (m.p.h.)	57.62	57.47	57.49	57.44	58.14	57.53	55.25	58.53	54.76	57.30	55.47	58.82
Standard deviation	4.93	4.79	5.12	4.51	4.12	5.54	5.75	4.53	6.48	4.13	5.40	4.58
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
39 m.p.h.	.47	0	.60	0	0	0	.46	0	1.52	0	0	0
44 m.p.h.	.95	.56	1.19	.76	0	0	.93	.40	1.52	0	.67	.50
49 m.p.h.	3.79	2.78	4.17	.76	2.33	8.16	13.89	2.82	21.21	4.26	10.67	2.49
54 m.p.h.	20.85	27.78	22.62	27.48	13.95	28.57	42.13	16.94	42.42	23.40	42.00	15.42
59 m.p.h.	70.14	69.44	69.05	71.76	74.42	63.27	79.63	55.24	81.82	68.09	78.67	52.24
64 m.p.h.	92.89	92.22	94.05	92.37	88.37	91.84	96.30	91.94	95.45	97.87	96.67	90.55
69 m.p.h.	98.58	97.78	98.21	98.47	100.00	95.92	99.54	100.00	98.48	100.00	100.00	100.00
74 m.p.h.	99.05	100.00	98.81	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
79 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
84 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
89 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of vehicles obs.	104	94	79	68	25	26	108	121	27	24	81	97
Average speed	58.16	57.64	58.11	57.68	58.32	57.54	56.26	59.26	53.48	56.79	57.19	59.87
No. of vehicles obs.	107	86	89	63	18	23	108	127	39	23	69	104
Average speed	57.09	57.28	56.93	57.19	57.89	57.52	54.25	57.84	55.64	57.83	53.46	57.85

TABLE 7 SPEED DATA

Station 4L-27 Highway U.S. 24 Location 3.5 miles east of junction of S.R. 9 Weather Clear

No. of Lanes 4 Type of Surface Asphalt

This Observation Date 5/23/77 Last Previous Observation (Speed Report No.)
 Time 12:12-1:16 P.M. - NB Date None taken
1:38-2:41 P.M. - SB Time

OBSERVATION	PASSENGER CARS				TRUCKS			
	All		Indiana		Non-Indiana		All	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		267		232		35		162
Ave. speed (m.p.h.)		56.97		56.94		57.11		56.52
Standard deviation		5.19		5.24		4.92		5.09
24 m.p.h.		0		0		0		0
29 m.p.h.		0		0		0		0
34 m.p.h.		0		0		0		0
39 m.p.h.		0		0		0		0
44 m.p.h.		.37		.43		0		0
49 m.p.h.		1.87		2.16		0		0
54 m.p.h.		6.74		7.33		2.86		6.17
59 m.p.h.		27.72		27.16		31.43		35.80
64 m.p.h.		69.66		69.83		68.57		72.84
69 m.p.h.		94.01		93.53		97.14		94.44
74 m.p.h.		99.25		99.14		100.00		99.38
79 m.p.h.		100.00		100.00		100.00		100.00
84 m.p.h.		100.00		100.00		100.00		100.00
89 m.p.h.		100.00		100.00		100.00		100.00
No. of vehicles obs.		135		121		14		78
Average speed		57.19		57.26		56.64		57.93
No. of vehicles obs.		132		111		21		84
Average speed		56.73		56.60		57.43		55.45
No. of vehicles obs.								
Average speed								
No. of vehicles obs.								
Average speed								

All Vehicles

End

TABLE 8 SPEED DATA

Station 4L-29 Highway U.S. 30 Location 1.3 miles east of junction of SR 13
 No. of Lanes 4 Type of Surface Asphalt Weather Clear
 This Observation Last Previous Observation (Speed Report No.)
 Date 5/25/77 Date None taken
 Time 9:04-9:52 A.M. - EB Time
10:11-10:56 A.M. - WB

OBSERVATION	PASSENGER CARS					TRUCKS				
	All		Indiana		Non-Indiana		All		<5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		206		167		39		227		65
Ave. speed (m.p.h.)		58.04		57.95		58.41		58.11		57.46
Standard deviation		5.25		5.40		4.63		5.14		5.71
24 m.p.h.		0		0		0		0		0
29 m.p.h.		0		0		0		0		0
34 m.p.h.		0		0		0		0		0
39 m.p.h.		0		0		0		0		0
44 m.p.h.		.49		.60		0		.88		1.54
49 m.p.h.		3.88		4.79		0		5.73		9.23
54 m.p.h.		23.79		25.15		17.95		23.79		30.77
59 m.p.h.		68.93		68.26		71.79		59.91		61.54
64 m.p.h.		87.38		87.43		81.18		88.99		87.69
69 m.p.h.		98.06		98.20		97.44		99.56		98.46
74 m.p.h.		99.03		99.40		97.44		100.00		100.00
79 m.p.h.		100.00		100.00		100.00		100.00		100.00
84 m.p.h.		100.00		100.00		100.00		100.00		100.00
89 m.p.h.		100.00		100.00		100.00		100.00		100.00
No. of vehicles obs.		117		95		22		99		26
Average speed		56.71		56.56		57.36		56.62		55.54
No. of vehicles obs.		89		72		17		128		39
Average speed		59.79		59.79		59.76		59.27		58.74

All Vehicles

Bnd Bnd

TABLE 9 SPEED DATA

Station 2L-18 Highway U.S. 35 Location 2.5 miles east of junction of I-69 Weather Clear
 No. of Lanes 2 Type of Surface Asphalt
 This Observation Date 5/11/77 Last Previous Observation (Speed Report No. 100)
 Date 5/11/77 Date 3/17/77
 Time 2:08-3:56 P.M. Time 2:20-4:23 P.M.

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.					
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	303	283	271	257	32	26	147	146	75	79	72	67				
Ave. speed (m.p.h.)	56.76	57.56	56.78	57.50	56.56	58.12	53.35	55.28	54.80	56.14	51.85	54.27				
Standard deviation	4.69	6.08	4.71	6.11	4.64	5.81	5.42	6.36	5.45	6.41	5.01	6.20				
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
44 m.p.h.	.99	2.12	.74	2.33	3.13	0	2.72	.68	2.67	0	2.78	1.40				
49 m.p.h.	5.28	7.07	5.54	7.39	3.13	3.85	21.09	15.75	12.00	12.66	30.56	19.40				
54 m.p.h.	30.03	27.92	29.89	27.63	31.25	30.77	56.46	43.15	42.67	37.97	70.83	49.25				
59 m.p.h.	73.27	67.14	73.43	67.70	71.88	61.54	89.12	73.29	85.33	70.89	93.06	76.12				
64 m.p.h.	96.04	87.99	95.94	88.33	96.88	84.62	97.96	93.15	96.00	89.87	100.00	97.01				
69 m.p.h.	98.68	96.47	98.52	96.11	100.00	100.00	99.32	99.32	98.67	98.73	100.00	100.00				
74 m.p.h.	100.00	99.29	100.00	99.22	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00				
79 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00				
84 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00				
89 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00				
% of vehicles traveling at or less than	131	129	119	120	12	9	84	84	42	44	42	40				
	56.62	58.37	56.66	58.33	56.17	58.89	52.87	56.23	54.71	57.66	51.02	54.69				
	172	154	152	137	20	17	63	62	33	35	30	27				
	56.87	56.88	56.88	56.77	56.80	57.71	54.00	54.00	54.91	54.23	53.00	53.70				

TABLE 10 SPEED DATA

Station	2L-54	Highway	U.S. 231	Location	1.1 miles south of junction of SR 234	Weather	Clear
No. of Lanes	2	Type of Surface	Asphalt				
This Observation	Last Previous Observation (Speed Report No. 100)						
Date	5/10/77	Date	3/16/77				
Time	10:18-1:01 P.M.	Time	10:14-2:23 P.M.				

OBSERVATION	PASSENGER CARS										TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.		Pres-	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	226	241	194	216	32	25	202	196	83	86	119	110		
Ave. speed (m.p.h.)	57.08	55.68	56.69	55.60	59.44	56.32	54.71	55.77	55.58	56.16	54.10	55.45		
Standard deviation	6.37	5.82	6.21	5.81	6.92	6.04	5.74	6.48	5.99	7.20	5.51	5.88		
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0		
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0		
34 m.p.h.	.44	0	.52	0	0	0	.50	0	0	0	.84	0		
39 m.p.h.	.44	.83	.52	.93	0	0	1.49	0	1.20	0	1.68	0		
44 m.p.h.	1.77	4.98	2.06	5.09	0	4.00	2.48	4.59	1.20	3.49	3.36	5.47		
49 m.p.h.	11.50	10.79	12.37	11.57	6.25	4.00	17.33	14.80	14.46	16.28	19.33	13.64		
54 m.p.h.	31.42	38.59	34.54	37.96	12.50	44.00	48.02	41.33	44.58	40.70	50.42	41.82		
59 m.p.h.	69.91	78.84	71.65	79.17	59.38	76.00	82.67	74.49	79.52	70.93	84.87	77.27		
64 m.p.h.	89.38	94.61	90.72	95.37	81.25	88.00	96.53	92.35	95.18	87.21	97.48	96.36		
69 m.p.h.	96.46	98.76	97.42	98.61	90.63	100.00	98.51	97.96	96.39	96.51	100.00	99.09		
74 m.p.h.	98.67	100.00	98.97	100.00	96.88	100.00	99.50	98.47	98.80	97.67	100.00	99.09		
79 m.p.h.	99.56	100.00	99.48	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
84 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
89 m.p.h.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
No. of vehicles obs.	110	110	94	102	16	8	104	102	38	43	66	59		
Average speed	57.63	55.99	57.11	55.88	60.69	57.37	53.89	55.69	55.18	56.98	53.15	54.75		
No. of vehicles obs.	116	131	100	114	16	17	98	94	45	43	53	51		
Average speed	56.55	55.41	56.29	55.35	58.19	55.82	55.57	55.85	55.91	55.35	55.28	56.27		

TABLE 11 SPEED DATA

Station 2L-75 Highway U.S. 35 Location 2.7 miles north of Knox city limit sign

No. of Lanes 2 Type of Surface Asphalt Weather Clear

This Observation Last Previous Observation (Speed Report No.)
 Date 5/20/77 Date None taken
 Time 10:58 A.M.-1:07 P.M. Time

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		247		217		30		180		86		94
Ave. speed (m.p.h.)		54.82		54.54		56.87		54.64		54.07		55.16
Standard deviation		5.75		5.74		5.47		5.27		5.70		4.81
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0		0		0
34 m.p.h.		0		0		0		0		0		0
39 m.p.h.		.81		.92		0		0		0		0
44 m.p.h.		4.45		4.61		3.33		5.00		8.14		2.13
49 m.p.h.		14.57		15.67		6.67		15.56		19.77		11.70
54 m.p.h.		45.34		47.47		30.00		46.11		51.16		41.49
59 m.p.h.		81.78		83.41		70.00		84.44		86.05		82.98
64 m.p.h.		94.74		94.93		93.33		98.89		97.67		100.00
69 m.p.h.		99.19		99.08		100.00		99.44		98.84		100.00
74 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00
79 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00
84 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00
89 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00
No. of vehicles obs.		129		112		17		85		37		48
Average speed		55.47		55.23		57.06		55.27		54.84		55.60
No. of vehicles obs.		118		105		13		95		49		46
Average speed		54.11		53.80		56.62		54.07		53.49		54.70

All Vehicles

Bnd

TABLE 12 SPEED DATA

Station 2L-81 Highway U.S. 27 Location 0.6 miles south of Union-Wayne county line

No. of Lanes 2 Type of Surface Concrete Weather Clear

This Observation Date 5/17/77 Last Previous Observation (Speed Report No.)
Time 8:37-10:53 A.M. Date None taken Time

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	283	228		55		150		74		76		76
Ave. speed (m.p.h.)	57.22	57.12		57.65		55.57		56.00		55.14		55.14
Standard deviation	5.84	5.35		7.59		5.25		4.60		5.82		5.82
24 m.p.h.	0	0		0		0		0		0		0
29 m.p.h.	0	0		0		0		0		0		0
34 m.p.h.	0	0		0		0		0		0		0
39 m.p.h.	.35	0		1.82		0		0		0		0
44 m.p.h.	.35	0		1.82		4.00		2.70		5.25		5.25
49 m.p.h.	8.48	7.46		12.73		9.33		6.76		11.84		11.84
54 m.p.h.	31.45	32.46		27.27		40.00		35.14		44.74		44.74
59 m.p.h.	68.90	70.18		63.64		80.67		79.73		81.58		81.58
64 m.p.h.	91.87	92.11		90.91		97.33		98.65		96.05		96.05
69 m.p.h.	97.17	97.81		94.55		98.67		100.00		97.37		97.37
74 m.p.h.	98.94	99.56		96.36		100.00		100.00		100.00		100.00
79 m.p.h.	99.65	100.00		98.18		100.00		100.00		100.00		100.00
84 m.p.h.	99.65	100.00		98.18		100.00		100.00		100.00		100.00
89 m.p.h.	100.00	100.00		100.00		100.00		100.00		100.00		100.00
No. of vehicles obs.	156	124		32		65		34		31		31
Average speed	57.04	56.92		57.53		56.68		56.85		56.48		56.48
No. of vehicles obs.	127	104		23		85		40		45		45
Average speed	57.44	57.36		57.83		54.72		55.27		54.22		54.22

All Vehicles

Bnd

Bnd

TABLE 13 SPEED DATA

Station	UI-6	Highway	I-65	Location	East of White River Bridge	Weather	Clear
No. of Lanes	6	Type of Surface	Concrete	Last Previous Observation (Speed Report No. 100)			
This Observation				Date	3/31/77		
Date				Time	10:08-10:40 A.M. - EB		
Time					11:04-11:34 A.M. - WB		

	PASSENGER CARS						TRUCKS							
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent		
All Vehicles	OBSERVATION													
	No. of vehicles obs.		271	275	243	229	28	46	166	161	69	80	97	81
	Ave. speed (m.p.h.)		57.02	58.11	57.00	58.03	57.18	58.50	56.43	56.91	55.67	56.99	56.98	56.83
	Standard deviation		4.90	5.00	4.95	5.07	4.52	4.67	4.94	5.06	5.22	4.96	4.68	5.19
	24 m.p.h.		0	0	0	0	0	0	0	0	0	0	0	0
	29 m.p.h.		0	0	0	0	0	0	0	0	0	0	0	0
	34 m.p.h.		0	0	0	0	0	0	0	0	0	0	0	0
	39 m.p.h.		0	0	0	0	0	0	.60	0	1.45	0	0	0
	44 m.p.h.		1.48	.36	1.65	.44	0	0	.60	.62	1.45	0	0	1.23
	49 m.p.h.		6.27	3.64	6.58	4.37	3.57	0	1.81	2.48	2.90	0	1.03	4.91
	54 m.p.h.		29.52	22.13	29.63	22.27	28.57	21.74	7.83	6.21	8.70	3.75	7.22	8.64
	59 m.p.h.		70.85	61.45	70.78	62.88	71.43	54.35	76.51	70.81	85.51	68.75	70.10	72.84
	64 m.p.h.		94.10	90.55	94.24	90.39	92.86	91.30	96.99	95.03	98.55	92.50	95.88	97.53
	69 m.p.h.		98.15	97.82	97.94	97.82	100.00	97.83	99.40	99.38	100.00	98.75	98.97	100.00
	74 m.p.h.		100.00	99.64	100.00	99.56	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
79 m.p.h.		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
84 m.p.h.		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
89 m.p.h.		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Bnd Bnd	No. of vehicles obs.		135	143	119	114	16	29	83	76	35	38	48	38
	Average speed		57.83	57.83	57.77	57.68	58.25	58.41	56.22	55.97	56.14	56.29	56.27	55.66
	No. of vehicles obs.		136	132	124	115	12	17	83	85	34	42	49	43
	Average speed		56.21	58.42	56.26	58.39	55.75	58.65	56.65	57.74	55.18	57.62	57.67	57.86

TABLE 14 SPEED DATA

NB: .9 miles north of junction of SR 8

Location SB: 1.6 miles south of U.S. 30

Highway I-65

Station UI-2

No. of Lanes 4

Type of Surface Concrete

Weather Clear

This Observation

Last Previous Observation (Speed Report No.)

Date 5/18/77

Date 11:25-12:02 P.M. - SB

Time 12:34-1:06 P.M. - NB

Date

Time

None taken

	PASSENGER CARS				TRUCKS			
	All		Indiana		Non-Indiana		All	
OBSERVATION	Last	Pres- ent	Last	Pres- ent	Last	Pres- ent	Last	Pres- ent
No. of vehicles obs.	214	118		96		221	47	174
Ave. speed (m.p.h.)	59.68	59.91		59.40		59.73	59.02	59.92
Standard deviation	4.68	5.12		4.09		4.91	6.00	4.57
24 m.p.h.	0	0		0		0	0	0
29 m.p.h.	0	0		0		0	0	0
34 m.p.h.	0	0		0		0	0	0
39 m.p.h.	0	0		0		0	0	0
44 m.p.h.	0	0		0		0	0	0
49 m.p.h.	3.27	3.39		3.13		1.36	2.13	1.15
54 m.p.h.	10.28	11.02		9.38		14.93	23.40	12.64
59 m.p.h.	50.00	49.15		51.04		50.23	55.32	48.85
64 m.p.h.	85.98	83.05		89.58		82.35	80.85	82.76
69 m.p.h.	97.20	95.76		98.96		98.64	97.87	98.85
74 m.p.h.	99.53	99.15		100.00		99.55	100.00	99.43
79 m.p.h.	100.00	100.00		100.00		100.00	100.00	100.00
84 m.p.h.	100.00	100.00		100.00		100.00	100.00	100.00
89 m.p.h.	100.00	100.00		100.00		100.00	100.00	100.00
No. of vehicles obs.	109	64		45		111	22	89
Average speed	60.11	60.11		60.11		59.71	59.41	59.79
No. of vehicles obs.	105	54		51		110	25	85
Average speed	59.23	59.67		58.76		59.75	58.68	60.06

All Vehicles

Bnd

Bnd

TABLE 15 SPEED DATA

Station _____ Highway Interstate Rural Location _____ See Individual Stations _____ Weather _____
 No. of Lanes _____ Type of Surface _____ Last Previous Observation (Speed Report No. _____)
 This Observation _____
 Date April-June 1977 _____
 Time _____

	PASSENGER CARS										TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent		
OBSERVATION														
No. of vehicles obs.		949		461		488		779		199		580		
Ave. speed (m.p.h.)		60.46		60.39		60.52		60.53		59.31		60.94		
Standard deviation		5.08		5.03		5.14		5.08		5.52		4.85		
24 m.p.h.		0		0		0		0		0		0		
29 m.p.h.		0		0		0		0		0		0		
34 m.p.h.		0		0		0		0		0		0		
39 m.p.h.		00		0		0		0		0		0		
44 m.p.h.		0		0		0		0		0		0		
49 m.p.h.		.74		.87		.61		1.93		4.02		1.21		
54 m.p.h.		9.17		9.54		8.81		10.78		18.09		8.28		
59 m.p.h.		46.36		47.07		45.70		41.59		53.77		37.41		
64 m.p.h.		82.40		82.00		82.79		81.39		85.93		79.83		
69 m.p.h.		94.73		95.23		94.26		95.51		95.48		95.52		
74 m.p.h.		98.63		98.70		98.57		99.10		98.99		99.14		
79 m.p.h.		99.79		100.00		99.59		99.87		100.00		99.83		
84 m.p.h.		99.89		100.00		99.80		100.00		100.00		100.00		
89 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00		
All Vehicles														
% of vehicles travelling at or less than														

All Vehicles

of vehicles
traveling at or less
than

TABLE 16 SPEED DATA

Station _____ Highway 4-Lane, Rural Location _____ See Individual Stations _____ Weather _____
 No. of Lanes _____ Type of Surface _____
 This Observation _____ Last Previous Observation (Speed Report No. _____)
 Date April-June 1977 Date _____
 Time _____ Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		931		776		155		788		277		511
Ave. speed (m.p.h.)		57.24		57.13		57.75		57.54		56.67		58.01
Standard deviation		5.37		5.43		5.05		5.51		5.83		5.27
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		.11		.13		0		0		0		0
34 m.p.h.		.11		.13		0		.25		0		.39
39 m.p.h.		.32		.39		0		.38		0		.59
44 m.p.h.		1.93		2.32		0		1.90		1.81		1.96
49 m.p.h.		5.80		6.06		4.52		6.47		8.30		5.48
54 m.p.h.		27.18		27.96		23.23		26.27		34.66		21.72
59 m.p.h.		70.14		70.62		67.74		63.83		72.20		59.30
64 m.p.h.		91.30		91.49		90.32		91.75		94.22		90.41
69 m.p.h.		98.39		98.45		98.06		99.49		98.56		100.00
74 m.p.h.		99.68		99.74		99.35		99.87		99.64		100.00
79 m.p.h.		100.00		100.00		100.00		99.87		99.64		100.00
84 m.p.h.		100.00		100.00		100.00		99.87		99.64		100.00
89 m.p.h.		100.00		100.00		100.00		99.87		99.64		100.00
% of vehicles travelling at or less than												

All Vehicles

TABLE 17 SPEED DATA

Station _____ Highway 2-Lane, Rural Location _____ See Individual Stations _____ Weather _____
 No. of Lanes _____ Type of Surface _____
 This Observation _____ Last Previous Observation (Speed Report No.)
 Date April-June 1977 Date _____
 Time _____ Time _____

	PASSENGER CARS								TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent		
OBSERVATION														
No. of vehicles obs.		1054		918		136		672		325		347		
Ave. speed (m.p.h.)		56.40		56.26		57.32		55.31		55.57		55.08		
Standard deviation		5.98		5.88		6.52		5.89		6.13		5.65		
24 m.p.h.		0		0		0		0		0		0		
29 m.p.h.		0		0		0		0		0		0		
34 m.p.h.		0		0		0		0		0		0		
39 m.p.h.		.47		.44		.74		.15		0		.29		
44 m.p.h.		2.85		2.94		2.21		4.91		4.92		4.90		
49 m.p.h.		10.06		10.35		8.09		13.99		14.15		13.83		
54 m.p.h.		35.39		35.95		31.62		42.71		41.54		43.80		
59 m.p.h.		73.72		74.73		66.91		78.27		76.92		79.54		
64 m.p.h.		92.13		92.48		89.71		95.39		93.23		97.41		
69 m.p.h.		97.82		97.82		97.79		98.81		98.46		99.14		
74 m.p.h.		99.53		99.67		98.53		99.55		99.38		99.71		
79 m.p.h.		99.91		100.00		99.26		100.00		100.00		100.00		
84 m.p.h.		99.91		100.00		99.26		100.00		100.00		100.00		
89 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00		

All Vehicles	
% of Vehicles traveling at or less than	

All Vehicles

of vehicles
travelling at or less
than

TABLE 18 SPEED DATA

Station _____	Highway _____	Interstate _____	Location _____	See Individual Stations
No. of Lanes _____	Type of Surface _____	Urban _____	Weather _____	
This Observation _____		Last Previous Observation (Speed Report No. _____)		
Date _____	Date _____	Date _____	Date _____	Date _____
Time _____	Time _____	Time _____	Time _____	Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		489		347		142		382		127		255
Ave. speed (m.p.h.)		58.80		58.67		59.11		58.54		57.74		58.94
Standard deviation		4.92		5.15		4.29		5.16		5.44		4.98
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0		0		0
34 m.p.h.		0		0		0		0		0		0
39 m.p.h.		0		0		0		0		0		0
44 m.p.h.		.20		.29		0		.26		0		.39
49 m.p.h.		3.48		4.03		2.11		1.05		0		1.57
54 m.p.h.		16.97		18.44		13.38		3.40		3.15		5.53
59 m.p.h.		56.44		58.21		52.11		19.11		28.35		14.51
64 m.p.h.		88.55		87.90		90.14		58.90		63.78		56.47
69 m.p.h.		97.55		97.12		98.59		87.70		88.19		87.45
74 m.p.h.		99.59		99.42		100.00		98.95		98.43		99.22
79 m.p.h.		100.00		100.00		100.00		99.74		100.00		99.61
84 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00
89 m.p.h.		100.00		100.00		100.00		100.00		100.00		100.00

All Vehicles

% of vehicles
traveling at or less
than

Station	Highway Indiana System	Location	See Individual Stations	Weather
No. of Lanes	Type of Surface			
This Observation	Last previous Observation (Speed Report No.)			
Date April-June 1977	Date			
Time	Time			

27

TABLE 20

Monitoring of Speed
(Statistical Summary)☒ Quarterly Report--Calendar Quarter Ending June 30, 1977or ☐ Annual Report--Year Ending _____STATE Indiana

	Miles	Number of Monitor Locations	Number of Vehicles Measured	Duration of Measurement Session (Hours)	Average Speed (MPH)	Median Speed (MPH)	85th Percentile Speed (MPH)	Percent of Motorists Exceeding		
								55 MPH	60 MPH	65 MPH
Interstate Urban	218	2	871	2.2	58.7	58.1	63.1	77	33	9
Interstate Rural	849	4	1728	6.4	60.5	59.7	64.8	86	48	14
Multi-lane, Divided	657	4	1719	9.0	57.4	57.0	62.1	65	26	5
Multi-lane, Undivided	--	--	(Included in multi-lane, divided)	--	--	classification	--	--	--	--
2-Lane, Rural	8030	4	1726	8.9	56.0	55.5	61.0	54	19	5
State Total	9754	14	6044	26.5	58.1	57.6	63.0	70	32	8

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Rural Interstate
 STATION NUMBER RI-6 LOCATION I-65, 7.5 miles north of junction of SR 160
 NUMBER OF SESSIONS 1 DATES 5-26-77 VEHICLES MEASURED 430
 AVERAGE SPEED (MPH) 60.5 STANDARD DEVIATION (MPH) 5.1
 MEDIAN SPEED (MPH) 59.8 85TH PERCENTILE SPEED (MPH) 64.8
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 86 60 MPH: 49 65 MPH: 14

TABLE 22

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY		Rural Interstate	
STATION NUMBER	RI-21	LOCATION	I-69, 1.6 miles south of junction of SR 18
NUMBER OF SESSIONS	1	DATES	5-11-77
VEHICLES MEASURED		437	
AVERAGE SPEED (MPH)	60.0	STANDARD DEVIATION (MPH)	5.0
MEDIAN SPEED (MPH)	59.0	85TH PERCENTILE SPEED (MPH)	64.0
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	84	60 MPH:	43
		65 MPH:	11

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	<u>Rural Interstate</u>		
STATION NUMBER	<u>RI-33</u>	LOCATION	<u>NB - 4.6 miles north of junction of SR 28 I-65, SB - 6.1 miles south of junction of SR 38</u>
NUMBER OF SESSIONS	<u>1</u>	DATES	<u>5-13-77</u> VEHICLES MEASURED <u>430</u>
AVERAGE SPEED (MPH)	<u>60.7</u>	STANDARD DEVIATION (MPH)	<u>5.2</u>
MEDIAN SPEED (MPH)	<u>60.0</u>	85TH PERCENTILE SPEED (MPH)	<u>65.3</u>
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	<u>86</u>	60 MPH:	<u>49</u>
		65 MPH:	<u>16</u>

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	Rural Interstate
STATION NUMBER	RI-25
LOCATION	Toll Road I-80 and I-90 - 12.2 miles east of junction of SR 9
NUMBER OF SESSIONS	1
DATES	5-24-77
VEHICLES MEASURED	431
AVERAGE SPEED (MPH)	60.8
STANDARD DEVIATION (MPH)	5.0
MEDIAN SPEED (MPH)	60.1
85TH PERCENTILE SPEED (MPH)	65.0
PERCENTAGE OF VEHICLES EXCEEDING:	
55 MPH:	89
60 MPH:	51
65 MPH:	15

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY	Multi-Lane Divided		
STATION NUMBER	4L-17	LOCATION	US 52, WB - 0.25 miles east of Co. Rd. 475W EB - 156 ft. east of Co. Rd. 475W
NUMBER OF SESSIONS	1	DATES	5-9-77
		VEHICLES MEASURED	429
AVERAGE SPEED (MPH)	56.5	STANDARD DEVIATION (MPH)	6.4
MEDIAN SPEED (MPH)	55.9	85TH PERCENTILE SPEED (MPH)	61.9
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	58	60 MPH:	21
		65 MPH:	6

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, Divided
 STATION NUMBER 4L-32 LOCATION US 30, 2.9 miles west of Wanatah city limit sign
 NUMBER OF SESSIONS 1 DATES 5-19-77 VEHICLES MEASURED 428
 AVERAGE SPEED (MPH) 58.1 STANDARD DEVIATION (MPH) 4.7
 MEDIAN SPEED (MPH) 57.7 85TH PERCENTILE SPEED (MPH) 62.2
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 72 60 MPH: 31 65 MPH: 4

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, Divided
 STATION NUMBER 4L-27 LOCATION US 24, SB - 3.8 miles east of junction of SR 9
 NB - 3.5 miles east of junction of SR 9
 NUMBER OF SESSIONS 1 DATES 5-23-77 VEHICLES MEASURED 429
 AVERAGE SPEED (MPH) 56.8 STANDARD DEVIATION (MPH) 5.2
 MEDIAN SPEED (MPH) 56.4 85TH PERCENTILE SPEED (MPH) 61.6
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 61 60 MPH: 22 65 MPH: 4

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, Divided
 STATION NUMBER 4L-29 LOCATION US 30, 1.3 miles east of junction of SR 13
 NUMBER OF SESSIONS 1 DATES 5-25-77 VEHICLES MEASURED 433
 AVERAGE SPEED (MPH) 58.1 STANDARD DEVIATION (MPH) 5.2
 MEDIAN SPEED (MPH) 57.6 85TH PERCENTILE SPEED (MPH) 62.8
 PERCENTAGE OF VEHICLES EXCEEDING:

55 MPH: 70 60 MPH: 31 65 MPH: 7

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY		Two Lane Rural	
STATION NUMBER	21-18	LOCATION	US 35, 2.5 miles east of junction of I-69
NUMBER OF SESSIONS	1	DATES	5-11-77
		VEHICLES MEASURED	
AVERAGE SPEED (MPH)	56.8	STANDARD DEVIATION (MPH)	6.3
MEDIAN SPEED (MPH)	56.4	85TH PERCENTILE SPEED (MPH)	62.2
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	58	60 MPH:	24
		65 MPH:	7

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane Rural
 STATION NUMBER 2L-54 LOCATION US 231, 1.1 miles south of junction of SR 234
 NUMBER OF SESSIONS 1 DATES 5-10-77 VEHICLES MEASURED 437
 AVERAGE SPEED (MPH) 55.7 STANDARD DEVIATION (MPH) 6.1
 MEDIAN SPEED (MPH) 55.4 85TH PERCENTILE SPEED (MPH) 61.2
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 54 60 MPH: 19 65 MPH: 5

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane RuralSTATION NUMBER 2L-75 LOCATION U.S. 35, 2.7 miles north of Knox city limit signNUMBER OF SESSIONS 1 DATES 5.-20-77 VEHICLES MEASURED 427AVERAGE SPEED (MPH) 54.7 STANDARD DEVIATION (MPH) 5.5MEDIAN SPEED (MPH) 54.5 85TH PERCENTILE SPEED (MPH) 59.5

PERCENTAGE OF VEHICLES EXCEEDING:

55 MPH: 46 60 MPH: 12 65 MPH: 2

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane RuralSTATION NUMBER 2L-81 LOCATION US 27, 0.6 miles south of Union-Wayne county lineNUMBER OF SESSIONS 1 DATES 5-17-77 VEHICLES MEASURED 433AVERAGE SPEED (MPH) 56.7 STANDARD DEVIATION (MPH) 5.7MEDIAN SPEED (MPH) 55.8 85TH PERCENTILE SPEED (MPH) 61.2

PERCENTAGE OF VEHICLES EXCEEDING:

55 MPH: 59 60 MPH: 21 65 MPH: 5

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY <u>Urban Interstate</u>			
STATION NUMBER	<u>UI-6</u>	LOCATION	<u>I-65, just east of White River Bridge</u>
NUMBER OF SESSIONS	<u>1</u>	DATES <u>5-16-77</u>	VEHICLES MEASURED <u>436</u>
AVERAGE SPEED (MPH)	<u>57.7</u>	STANDARD DEVIATION (MPH)	<u>5.1</u>
MEDIAN SPEED (MPH)	<u>57.3</u>	85TH PERCENTILE SPEED (MPH)	<u>61.7</u>
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	<u>70</u>	60 MPH:	<u>26</u>
		65 MPH:	<u>6</u>

TABLE 34

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY		Urban Interstate	
STATION NUMBER	UI-2	LOCATION	NB - .9 miles north of junction of SR 8 I-65, SB - 1.6 miles south of junction of US 30
NUMBER OF SESSIONS	1	DATES	5-18-77
		VEHICLES MEASURED	
		435	
AVERAGE SPEED (MPH)	59.7	STANDARD DEVIATION (MPH)	4.8
MEDIAN SPEED (MPH)	59.0	85TH PERCENTILE SPEED (MPH)	64.2
PERCENTAGE OF VEHICLES EXCEEDING:			
55 MPH:	84	60 MPH:	41
		65 MPH:	11

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